REMARKS

Applicant submits the following remarks. Claims 17-26, 45-48, and 59 have been canceled without prejudice. Claims 1, 27, 42, 53, and 54 have been amended. Support for the amendments can be found throughout the specification, including the figures, for example, Fig. 1 and Fig. 9. No new matter has been added. Claims 1, 3-15, 27-30, 32-34, 36-44, 49-51, and 53-58 are pending.

Rejection under 35 U.S.C. § 103

Claims 1, 3-15, 17-30, 32-34, 36-51, 53 and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over German Patent No. 3,336,378 to Knauf ("Knauf") in view of U.S. Patent No. 5,605,024 to Sucato et al. ("Sucato"), U.S. Patent No. 5,913,788 to Herren ("Herren"), and U.S. Patent No. 5,527,625 to Bodnar ("Bodnar"). Applicant respectfully requests withdrawal of this rejection. Claims 1, 27, 42, 53 and 54 are independent.

I. Knauf, Sucato, Herren and Bodnar, alone and in combination, fail to teach or suggest a metal framing member including a web region including a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids, each expanded web slot has a length to width ratio of 2:1 or greater, and the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater.

Applicant has discovered a metal framing including a web region including a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids, each expanded web slot has a length to width ratio of about 2:1 or greater, and the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater. See claims 1, 27, and 42. The combined references fail to teach or suggest all elements of claims 1, 27, and 42.

Knauf does not teach or suggest a framing member in which the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater. Rather, Knauf Fig. 1 shows a framing member having a much smaller ratio of web element width to unexpanded framing member width.

This missing element cannot be properly drawn from Sucato, Herren, or Bodnar. Sucato discloses "a pair of U-shaped members 62 and 63 which may be formed of a metallic material that are interconnected by bight 64 comprising an expandable mesh 65" (col. 4, lines 22-25), and

shows a framing member having a much smaller ratio of web element width to unexpanded framing member width than recited in claim 1 herein. See Figs. 20-21 of Sucato. Herren and Bodnar also fail to teach the claimed ratio of the distance between unexpanded slots to the unexpanded dimension of the framing member. Second, the teachings of Sucato, Herren, and Bodnar are not properly combinable with the teachings of Knauf, as there is no motivation or suggestion provided by the Examiner or contained within the references to combine Knauf with Sucato, Herren, or Bodnar. The references, alone and in combination, fail to teach the claimed ratio of web element width to unexpanded framing member width.

The cited references also fail to teach a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids. See claims 1, 27, and 42. Knauf does not disclose any reinforcements. The Examiner erroneously alleges that Knauf teaches "[d]arts or dimples 66 proximate to the web slots," which applicant presumes is intended to be a description of Sucato. Knauf contains no teaching or suggestion of a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids.

The other references also do not teach or suggest a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids. As described in Sucato, "FIG. **22** is a cross sectional view of FIG. **21** with a crease line or indentation **66** added to neck **65** to strengthen the mesh when the stud is in its expanded position." See column 4, lines 31-33 of Sucato (emphasis added). The crease line or indentation described in Sucato is not a reinforcement proximate to an expanded web slot. Example of a reinforcement proximate to an expanded web slot, which are next to the expanded web slots, are shown in Figs. 3 of Applicant's specification. As shown below in the reproduction of Fig. 22 of Sucato, crease line or indentation **66** extends across and through the expandable mesh **65**, including the voids. See column 4, lines 22-25 and lines 31-33. Thus, the crease line or indentation is not proximate to an expanded web slot and confined to the web elements and exclusive to the web voids. There is no teaching or suggestion in Sucato of any structural feature proximate to an expanded web slot.

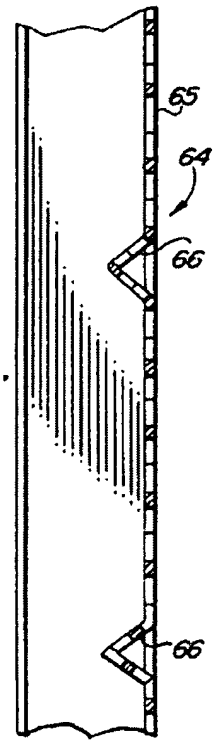

FIG-22

Sucato Fig. 22

Moreover, the crease line or indentation is not a reinforcement confined to a web element and exclusive to the web voids. Indeed, there is no teaching or suggestion in Sucato of any structure other than a crease or indentation across the width of an expandable web. In addition, the web in Sucato has voids that have a length to width ratio of approximately 1:1. Sucato does not describe or suggest each expanded web slot has a length to width ratio of 2:1 or greater. The expanded web slot has a length to width ratio of 2:1 or greater is necessary to achieve the structure on the web that is not available when the ratio is approximately 1:1. See Declaration of Anderson submitted with Applicant's response dated April 20, 2006.

Herren does not cure these deficiencies. Although the Examiner points to element 39 of Herren as teaching a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids as recited in claim 1, element 39 is actually a standoff washer, not a reinforcement. See col. 8, lines 26-44. Also, standoff washer 39 is not located in any web region.

Bodnar also does not cure these deficiencies. The depressions and flanges of Bodnar are not proximate to expanded web slots and confined to the web elements and exclusive to the web voids. Bodnar instead teaches flanges 94, 96, 98, 100, 102, and 104 that are integral, not exclusive, to the openings. See col. 6, line 61 to col. 7, line 2, Figs. 5, 6. Furthermore, Bodnar describes structures that are pierced. See column 1, line 64 of Bodnar. There is no description or suggestion in Bodnar of a plurality of expanded web slots. Bodnar also describes a metal member having corner flanges 100, 104 in the corners of generally triangular openings 92. See column 6, line 55 - column 7, line 2; FIG. 5 of Bodnar. Bodnar also describes generally three-sided depressions such as depressions 42, 44 formed in a strut portion 28 of the disclosed member. See column 6, lines 10-13; FIG. 1 of Bodnar. Bodnar does not describe or suggest a plurality of reinforcements proximate to the web slots.

Applicants have discovered a framing member utilizing a unique combination of features: (a) a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids; (b) expanded web slots each having a length to width ratio of about 2:1 or greater; and (c) the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater. This combination of elements is necessary to achieve the structure of the web region in the framing member that is otherwise not available in the absence of these features. See Declaration of Jeffrey A. Anderson dated November 9, 2006, attached as Exhibit 1. The cited references fail to teach or suggest, alone and in combination, a framing member having these features.

Moreover, the Examiner has not established that one of ordinary skill in the art would modify an invention related to a stud assembly having an expandable mesh connector (Knauf and Sucato) based on the teachings of references that do not include any expandable mesh or slots (Bodnar and Herren).

For at least these reasons, claims 1, 27, and 42, and claims that depend therefrom, are patentable over Sucato in view of Bodnar and Herren. Applicant requests that this rejection be reconsidered and withdrawn.

II. Knauf, Sucato, Herren and Bodnar, alone and in combination, fail to teach or suggest heat treating a metal framing member including a web region including a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids, each expanded web slot has a length to width ratio of about

2:1 or greater, and the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater.

The Examiner previously indicated that the subject matter of heat treating the claimed metal framing matter is patentable (see September 8, 2004 Office Action, page 3), yet continues to reject claims 53 and 54, which recites heat treating a frame member after expanding the slots, as obvious over Knauf in view of Sucato, Herren, and Bodnar.

The Examiner does not suggest--and Applicant agrees--that either Knauf, Sucato, or Herren teaches heat treating expanded web slots in a formed metal sheet. The Examiner incorrectly asserts that Bodnar teaches this element, referring to column 7, line 50 - column 8, line 65. This portion of Bodnar actually discloses that the described member **can be formed from cold rolled or hot rolled steel**. See column 2, lines 41-42 of Bodnar. Bodnar does not teach or suggest expanding the slots of the web region to form expanded slots having a web element and a web void, and heat treating the member after expanding the slots. Bodnar merely describes piercing cold rolled or hot rolled steel. There is no expanding taught or suggested in Bodnar. Similarly, there is no heat treating after expanding taught or suggested by Bodnar.

Furthermore, as explained above, none of the references teaches or suggests that the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater. As also explained above, the references alone and in combination, fail to teach or suggest a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids.

Additionally, as explained above, there is no motivation or suggestion to combine the teachings of Knauf, Sucato, Herren, and Bodnar.

For at least these reasons, claim 53 should be allowed. Applicant respectfully requests that this rejection be reconsidered and withdrawn.

III. Knauf, Sucato, Herren and Bodnar, alone and in combination, fail to teach or suggest a heat-treated metal framing member including a web region including a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids, each expanded web slot has a length to width ratio of about 2:1 or greater, and the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater.

Claim 54, which recites a metal framing member having expanded web slots that are heat treated, also stands rejected as obvious over Knauf in view of Sucato, Herren, and Bodnar. As explained above with reference to claim 53, Bodnar and the other cited references do not disclose expanded web slots that have been heat treated. As discussed above with reference to claim 53, these references also fail to teach or suggest that the ratio of the distance between adjacent slots prior to expansion to a width of the formed metal sheet prior to expansion is 1:8 or greater, or that the framing member includes a plurality of reinforcements proximate to the web slots and confined to the web elements and exclusive to the web voids.

Furthermore, as noted, the combination of these references is improper. For at least these reasons, claim 54 should be allowed. Applicant respectfully requests that this rejection be reconsidered and withdrawn.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant respectfully requests that the pending claims be allowed and the application pass to issuance. A petition for a one month extension of time and the required fee are enclosed. The Commissioner is authorized to apply any charges or credits to deposit account 19-4293.

Respectfully submitted,

Date: 11-9-06

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